

***Ligia boninensis*, a New Isopod Crustacean
from Haha-jima, Bonin Islands, Japan ***

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小笠原諸島母島から発見されたフナムシの一新種 (甲殻類等脚目)

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小笠原諸島母島から発見されたフナムシを新種 *Ligia boninensis* (和名オガサワラフナムシ) として記載した。本種はわが国の海岸に普通にみられる *Ligia exotica* Roux とは (1) 雄の第一胸肢前節の突起がないこと, (2) 第2触角の鞭数が少ないこと, (3) 雄第2腹肢の形態 (4) 顎脚の形態, (5) 尾節の形態などによって区別される。また本種と最も似ている *Ligia perkinsi* (Dollfus) とは (1) 第2触角の鞭数が少ないこと (2) 尾肢が短いことなどによって区別される。

Hitherto, only two species of the genus *Ligia* (Family Ligiidae) has been recognized as valid in the isopod fauna of Japan. In April 1973, Dr. Tatsunori Itô of the Hokkaido University made a little collection of *Ligia* at Haha-jima, Bonin Islands (Ogasawara Islands), during his survey of the interstitial fauna of the island. Through his kindness, these specimens were sent to me for study, and at closer examinations, they proved to represent a new species. The specimens, preserved in alcohol, were dissected and examined in glycerol. All the figures were drawn by using camera lucida or shadow graph.

Before going further, I would like to express my sincere gratitude to Dr. S. Nishimura of the Kyoto University for reading the manuscript, to Dr. T. Itô¹ for his kindness in giving me the opportunity to study the present interesting specimens, and to Dr. T. E. Bowman of the Smithsonian Institution for his kindness to supply me with a copy of Dollfuss' paper which was indispensable for the present study.

***Ligia boninensis*, n. sp.**

(Japanese name: Ogasawara funamushi)

(Text figures, 1-3)

Material examined: 2♂♂ (1♂ allotype, 8.8 mm in body length, 1♂ paratype, 11.0 mm in body length) and 6♀♀ (1♀ holotype, 11.0 mm in body length, 5♀♀ paratypes 8.6~12.1 mm in body length), mountain path of Oki-mura, Haha-jima, Bonin Islands, coll. Tatsunori

*Contributions from the Toyama Science Museum No. 3

ITÔ, Apr. 12, 1973. Type specimens are deposited as follows: holotype (Cr - 102), allotype (Cr - 103) and 3 paratypes (Cr - 104~106) at the Toyama Science Museum and 3 paratypes (OMNH - Ar - 1768~1770) at the Osaka Museum of Natural History.

Habitat: Specimens were collected on the path of ca. 100m above sea level. Soil is reddish and lateritic, but moderately wet. Near the collecting point, there can be seen *Leucaena glauca* and other trees, but undergrowth is poorly developed.

Description: Body surface rather smooth but with minute granules very sparsely all over. Body color brown in alcohol. Eyes big and reniform with more than 600 ocelli.

First antenna vestigial and composed of three segments; first segment stout with two setae and many hairs; second segment oblong with many hairs; terminal segment small and semicircular. Second antenna longer than the thoracic segments; first three segments short and rectangular; fourth and fifth segments long with many small spines; flagellum with 22 segments.

Right mandible with a strong biting tooth; lacina mobilis slender, not chitinized and with four teeth at the tip; 10 hairy setae between biting tooth and molar process. Left mandible with two strong teeth; lacina mobilis chitinized with three heads; about seven hairy setae between biting teeth and molar process. First maxilla with two lobes; outer lobe with about six curved teeth and two or three recurved teeth bearing small spines; inner lobe somewhat shorter than outer lobe and with three hairy bristles. Second maxilla divided into two lappets. Maxilliped with five-segmented palp; endite extending beyond the distal end of third segment but not reaching the fourth segment and with many hairs and nine to ten stout and short spines at the tip; exopodite small.

All the pereopods are almost similar in shape in both sexes, but the size gradually increases from the anterior leg to the posterior one; coxa very minute; basis oblong with two to a dozen setae; ischium oblong with a relatively

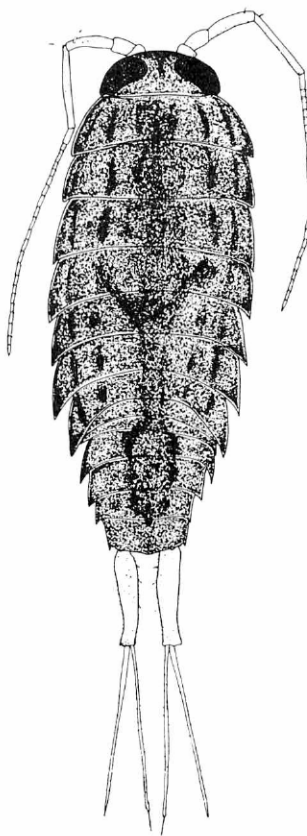


Fig. 1. *Ligia boninensis*, n. sp.
Dorsal view of holotype female.

big seta at outer corner; merus oblong with four to ten setae at inner margin; carpus also oblong with five to eight setae at inner margin and one or two setae at outer distal corner; propodus long with three to six setae on inner margin; dactylus with bifid claw; first peraeopod in male without comb or process on propodus.

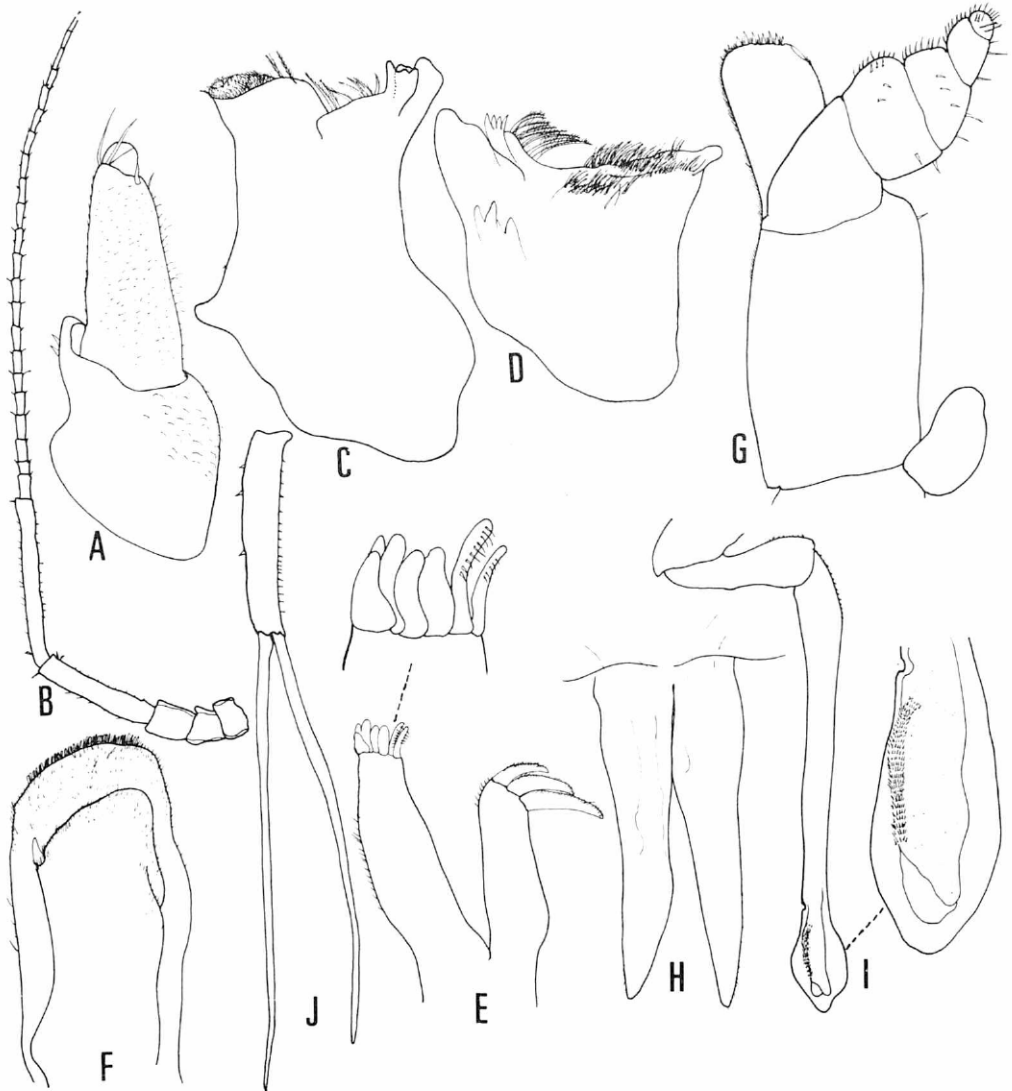


Fig. 2. *Ligia boninensis*, n. sp. A: First antenna, B: Second antenna, C: Left mandible, D: Right mandible, E: First maxilla, F: Second maxilla, G: Maxilliped, H: Penes, I: Stylus of second pleopod of male (A–D, F–G, J: holotype female, E: paratype female, H–I: allotype male).

Penes mediocre, apex weakly setose. Second pleopods in male are modified; stylus long, apical part swollen with about six rows of 25 spinules. Uropod with three spines on inner margin and many little spines on outer margin of protopodite; both lami long but exopodite somewhat shorter than the endopodite. Posterior margin of telson triangulate with blunt median process and rather sharp accessory process.

Remarks: The present new species is most closely allied to *Ligia perkinsi* (Dollfus) from Hawaii, but differs from the latter by the following points: (1) less numerous flagellar segments of the second antenna, (2) shape of the first antenna, (3) shorter uropod, and (4) more bluntly posterolateral process of telson. The present new species is also distinguishable from *Ligia exotica* Roux, the widely distributed species in Japan, by the following points: (1) lack of process on the first peraeopod of male, (2) less numerous flagellar segments of the second antenna, (3) shape of stylus of male second pleopod, (4) shape of maxilliped, and (5) less sharp posterior end of telson.

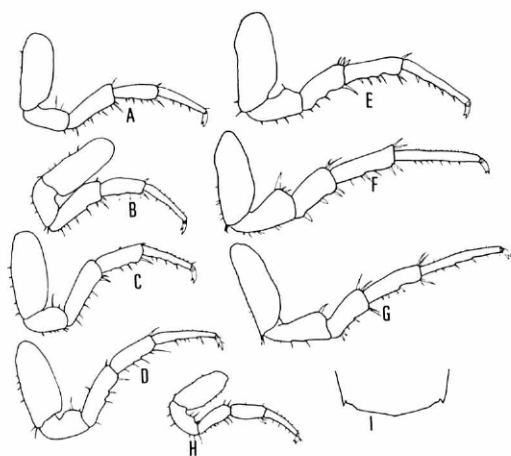


Fig. 3. *Ligia boninensis*, n. sp.

A-G; First to seventh peraeopods of female, H; First peraeopod of male, I; Telson. (A-G, I; holotype female, H; allotype male.).

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